Phosphorus, Sulfur and Silicon and the Related Elements 2007 vol.182 N3, pages 607-630

Synthesis of novel arylthio derivatives of mucochloric acid

Kurbangalieva A., Devyatova N., Bogdanov A., Berdnikov E., Mannafov T., Krivolapov D., Litvinov I., Chmutova G.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

Stable reaction products of mucochloric acid with aromatic and heterocyclic thiols were synthesized and characterized. Under basic conditions the reactions proceeded with the substitution of the chlorine atom(s) by arylthiogroup(s), while in an acidic medium the hydroxy group at C5 was substituted. Different types of new sulfur-containing products of di- and trisubstitution on the basis of mucochloric acid were obtained. In one case a new acyclic product - di-p-tolyl-2,3-bis-(p-tolylthio)butanedithioate - was isolated. The structure of all synthesized compounds was confirmed by IR, 1H, and 13C NMR spectroscopy; three compounds were characterized by single crystal X-ray diffraction.

http://dx.doi.org/10.1080/10426500601015989

Keywords

Furanone, Mucochloric acid, Single crystal X-ray diffraction, Sulfur, Thioether